

APPLICANT(S): GUCHHAIT, Atanu  
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#### REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicant asserts that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

#### Status of Claims

Claims 1- 40 remain pending in the application. Claims 1-8, 11 and 13-40 have been rejected. Claims 9, 10 and 12 have been objected to. Claims 1, 9, 12, 13, 21, 28 and 34 have been amended. Applicant respectfully asserts that the amendments to the claims add no new matter.

#### Allowable Subject Matter

Applicant wishes to thank the Examiner for indicating that claims 9, 10 and 12 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Independent claims 21 and 28 have been amended to include the limitations of original claim 12. Claim 12 has been rewritten in independent form including all the limitations of the base claim and any intervening claims.

#### CLAIM REJECTIONS

##### 35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 1, 3-4, 13, 15-16, 21, 28, 34 and 36-37 under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 7,095,813 to Amerga et al. (hereinafter "Amerga").

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In order for a reference to anticipate a claim, the reference must teach every element of the claim. Applicant asserts that Amerga does not teach every element of Applicant's independent claims 1, 13, 21, 28 and 34 as amended.

Applicant respectfully asserts that, Amerga does not teach at least the claimed feature of "wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples", as recited by amended claims 1, 13 and 34.

It is respectfully asserted that Amerga does not teach or fairly suggest, at least the above recited elements of claims 1, 13 and 34.

Amerga discloses a system and method to reduce the effects of time of arrival (TOA) errors by modeling the response function and calculating the width of the pulse using the modeling function with a dynamically adjustable factor to indicate at what point down from the peak the pulse width will be calculated (see abstract).

Amerga is silent, however, in general as to computing slope-normalized operator values which are calculated using an operator multiplied by a slope-normalizing factor and in particular, as to " wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples ", as recited in claims 1, 13 and 34.

Independent Claims 21 and 28 have been amended to incorporate the limitations of allowable claim 12 and in particular to include the limitation of "providing information associated with said one or more dominant path, wherein said information comprises at least one type of information selected from the group consisting of a relative path delay, a relative path amplitude and a number of paths", cited in original claim 12.

Accordingly, Applicant respectfully requests that the rejection of claims 1, 13, 21, 28 and 34 be withdrawn.

Each of dependent claims 3-4, 15-16 and 36-37 depends, directly or indirectly, from one of independent claims 1, 13 and 34, and includes all the features of the claim from which it depends as well as additional distinguishing features, and is therefore allowable.

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Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1, 3-4, 13, 15-16, 21, 28, 34 and 36-37 under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 7,095,813 to Amerga.

**35 U.S.C. § 103 Rejection Based on Amerga in view of Royle**

Claims 5-6, 7-8, 11, 17-20, 21, 23-27, 30-33 and 38-40 were rejected under 35 U.S.C. 103(a), as being unpatentable over Amerga in view of U.S. Patent No. 7,095,813 to Royle et al. (hereinafter "Royle") Applicant respectfully traverses the rejection of claims 5-6, 7-8, 11, 17-20, 21, 23-27, 30-33 and 38-40 under 35 U.S.C. § 103(a) in view of the remarks that follow.

According to M.P.E.P. §2142, In order to establish a prima facie case of obviousness, the prior art references must teach or suggest all the claim limitations.

Without conceding the appropriateness of the combination, Applicant respectfully submits that the combination of Amerga taken with Royle does not meet the requirements of an obviousness rejection, in that the combination at least fails to teach or suggest all the elements of the claimed invention.

Independent claims 1, 13 and 34, as amended, recite "wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples".

Applicant respectfully submits that neither Amerga nor Royle, alone or in combination, teaches or suggests, at least the above cited elements of claims 1, 13 and 34.

As discussed above Amerga does not teach or fairly suggest at least "wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples", as is required in Applicant's independent claims 1, 13 and 34. Royle does not cure the deficiencies of Amerga.

Independent claims 21 and 28, as amended, recite the elements of original claim 12 and in particular "providing information associated with said one or more dominant path, wherein said information comprises at least one type of information selected from the group

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consisting of a relative path delay, a relative path amplitude and a number of paths", cited in original claim 12.

Each of dependent claims 5-6, 7-8, 11, 17-20, 23-27, 30-33 and 38-40 depends, directly or indirectly, from one of independent claims 1, 13, 21, 28 and 34 and incorporates all the elements of the claim from which it depends. Therefore, it is respectfully submitted that claims 5-6, 7-8, 11, 17-20, 23-27, 30-33 and 38-40 are patentable, and thus allowable, at least for all the reasons set forth above.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 5-6, 7-8, 11, 17-20, 21, 23-27, 30-33 and 38-40 under 35 USC §103(a) over Amerga et al. in view of Royle et al.

#### **35 U.S.C. § 103 Rejection Based on Amerga in view of Hamila**

Claims 2, 14, 22, 29 and 35 were rejected under 35 U.S.C. 103(a), as being unpatentable over Amerga in view of Applicant Admitted Prior Art to Hamila ("Novel Technique for closely-spaced Multipath Delay Estimation in DS-CDMA systems") (hereinafter "Hamila"). Applicant respectfully traverses the rejection of claims 2, 14, 22, 29 and 35 under 35 U.S.C. § 103(a) in view of the remarks that follow.

According to M.P.E.P. §2142, in order to establish a prima facie case of obviousness, the prior art references must teach or suggest all the claim limitations.

Without conceding the appropriateness of the combination, Applicant respectfully submits that the combination of Amerga taken with Hamila does not meet the requirements of an obviousness rejection, in that the combination at least fails to teach or suggest all the elements of the claimed invention.

Independent claims 1, 13 and 34, as amended, recite "wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples".

Applicant respectfully submits that neither Amerga nor Hamila, alone or in combination, teaches or suggests, at least the above cited elements of claims 1, 13 and 34.

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As discussed above Amerga does not teach or fairly suggest at least "wherein said set of slope-normalized operator values are calculated using an operator multiplied by a slope-normalizing factor which is calculated using a maximum value of said signal samples", as is required in Applicant's independent claims 1, 13 and 34.

Applicant respectfully submits that Hamila does not cure the deficiencies of Amerga and in particular that the Teager-Kaiser operator of Hamila (see equation (24) on page 11) cannot be considered to be the slope-normalized operator values of the present invention which are "calculated using an operator multiplied by a slope-normalizing factor, calculated using a maximum value of said signal samples" as is required in Applicant's independent claims 1, 13 and 34.

Independent claims 21 and 28, as amended, recite the elements of original claim 12 and in particular "providing information associated with said one or more dominant path, wherein said information comprises at least one type of information selected from the group consisting of a relative path delay, a relative path amplitude and a number of paths", cited in original claim 12

Each of dependent claims 2, 14, 22, 29 and 35 depends, directly or indirectly, from one of independent claims 1, 13, 21, 28 and 34 and incorporates all the elements of the claim from which it depends. Therefore, it is respectfully submitted that claims 2, 14, 22, 29 and 35 are patentable, and thus allowable, at least for all the reasons set forth above.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 2, 14, 22, 29 and 35 under 35 USC §103(a) over Amerga et al. in view of Hamila.

### Claim Objections

In the Office Action, the Examiner objected to claims 9-10 and 12 as being dependent upon a rejected base claim and indicated that the claims would be allowable if rewritten in independent form. As discussed above claims 21 and 28 have been amended to include the limitations of original claim 12. Claim 12 has been rewritten in independent form including all the limitations of the base claim and any intervening claims and claims 1, 13, and 34, as

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amended, are believed to be allowable. Accordingly, Applicant requests withdrawal of the objection.

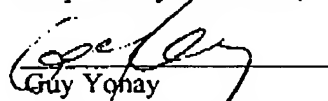
### CONCLUSION

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge the \$200.00 large-entity fee for the one new independent claim over three to deposit account No. 50-3355. Aside from this fee, no fees are believed to be due associated with this paper. However, if any additional fees are due, please charge such fees to deposit account No. 50-3355.

Respectfully submitted,

  
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